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EDITORIAL

The medical literature and the discipline of infection control

Infection control was put to the test when severe acute respiratory syndrome (SARS) spread from Asia, particularly affecting Canada and the United States. From late 2002 to the spring of the 2003, the virulent pathogen infected 8098 people, causing 774 deaths [1,2] and igniting alarm before its spread was arrested.

The advent of SARS set the stage for another scare when avian influenza A (H5N1) threatened to spark a pandemic. Governments around the world drafted plans to impose quarantines and stockpile antiviral agents, while hospital managers planned for a surge of patients [3–5]. To date, though, the world has been spared a global problem.*

Both episodes led to a flurry of scientific papers [6], adding to the growing body of infection control and prevention literature already augmented by increased publication by researchers and practitioners from countries with maturing health care systems like Brazil and China.

The field's expanding knowledge base, along with the rising pace of globalization, demonstrates the need for additional outlets for the dissemination of research. The launch, then, of the Journal of Infection and Public Health is a welcome addition to the community of peer-reviewed scientific publications.

Despite groundbreaking advancements in microbiology and epidemiology, yielding insights into the mechanisms driving the transmission of infectious diseases, clinicians and practitioners continue to struggle with rendering those gains into commensurate breakthroughs in the reduction of healthcare-associated infections (HAI) [7,8]. In a

2007 paper appearing in Public Health Reports, Klevens et al. [9] estimated 1.7 million episodes of HAIs in U.S. hospitals during 2002, resulting in 98,987 deaths. Other countries, both developed and developing, and especially resource-poor nations, confront similar challenges. The stubborn persistence of these high mortality rates demand increased research and publication that translates research findings into improved patient outcomes. To that end, the addition of JIPH to the field of infection control journals is an auspicious step.

Indeed, in light of the strain that HAIs place on healthcare systems [10], the current number of peer-reviewed journals might seem inadequate. Presently, three journals publish the bulk of infection control and prevention-related papers: Journal of Hospital Infection, American Journal of Infection Control and Hospital Epidemiology. In the United States, for example, the Centers for Disease Control and Prevention attributed 14,627 deaths to AIDS in 2006 [11]. Yet, the number of AIDS-related publications far exceeds the two U.S. infection control journals (AJIC and ICHE) even though nearly seven times as many people died from HAIs. With the continued threat of emerging and the persistence of reemerging diseases, the opportunity for HAIs to burden the health care system will not diminish [12].

Not only does the persistence of HAI justify a robust infection prevention literature, the changing dynamics of infectious disease themselves pose new challenges that will spur research and publication. The emergence of multidrug-resistant organisms (MDRO), the increasing prevalence of methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile*-associated disease, along with the continuing threat of pandemic influenza

* The authors wrote this commentary before the outbreak of swine influenza A (H1N1) in late April 2009.

provide fertile ground for researchers and practitioners to expand the scope of the literature.

Of course, adding to the body of published research is not an end in itself. The value from these endeavors will show when health officials confront the next outbreak or when patients see meaningful reduction in the probability that they will avoid a preventable disease.

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